

Accompanying Documents

The following documents accompany this response:

- (1) Copy of the currently pending claims, incorporating the amendments made herein;
- (2) Marked-up version of the claims and specification, showing the amendments made herein;
- (3) Marked-up figures, showing the amendments made herein; and
- (4) Sequence Listing in paper copy and computer-readable form.

AMENDMENT

In the Specification:

Please replace the paragraph beginning at page 4, line 13 with the following rewritten paragraph:

03 Figs. 5A and 5B present bar graphs of epitope mapping showing the binding of serum from sheep immunized with a peptide that spanned HCV1 E2HV region to 8-mer overlapping mimotopes that spanned the same region.

Please replace the paragraph beginning at page 4, line 18 with the following rewritten paragraph:

04 Figs. 7A-7C present bar graphs of epitope mapping showing the binding of human serum albumin, prealbumin, and TBG to overlapping peptides of the E2HV region.

Please replace the paragraph beginning at page 30, line 25 with the following rewritten paragraph:

05 The results of the screening using sheep serum IgG s1634-2 and s1635-2 from sheep immunized with the conjugated 30-mer are shown in Figs. 5A and 5B. The results indicate that sheep 1634-2 IgG reacts with the minimum epitope ⁴⁰⁰VSLLA⁴⁰⁴. IgG from sheep 1635-2 has a broader reactivity profile--the sera reacts with the peptides containing the minimum ⁴⁰⁰VSLLA⁴⁰⁴ epitope, and in addition, peptides containing the minimum epitopes ⁴⁰¹SLLAPGA⁴⁰⁷ and ⁴⁰³LAPGA⁴⁰⁷. Thus, the IgG preparation from sheep immunized with the 30-mer peptide of E2HV is reactive with linear epitope(s) between amino acids 400 to 407.

Please replace the paragraph beginning at page 42, line 28 with the following rewritten paragraph:

06 The binding of three serum proteins, human prealbumin, human serum albumin, and thyroid binding globulin (TBG) to overlapping peptides spanning E2HV was performed. Octamer bearing pins were prepared as described in Example 1. The binding of the designated serum proteins to the octamers was determined by an ELISA assay, using antibodies directed to the specific proteins. Controls were run in the absence of the serum proteins but in the presence of the respective antibodies. The results, shown as difference plots, are shown in Figs. 7A-7C. Based upon the results, it appears that transthyretin binds to at least one minimum epitope in the hypervariable region. In addition, the results are suggestive that TBG binds to two minimum epitopes, one of which encompasses the SLF--G motif.